

***PSEUDOPYGMEPHORUS ATYPOIDES* RACK, NEW SPECIES  
(ACARI: PYGMEPHORIDAE) ASSOCIATED WITH THE  
FOSSORIAL MYGALOMORPH SPIDER  
*ATYPOIDES RIVERSI* O. P.-CAMBRIDGE  
(ARANEAE: ANTRODIAETIDAE) IN CALIFORNIA**

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Mites of the family Pygmephoridae are often found in association with insects and small mammals in soil and litter. Unlike other species of the pygmephorid genus *Pseudopygmephorus* Cross, 1965, the host for the new species of *Pseudopygmephorus* described here is a ground-loving spider, *Atypoides riversi* O. P.-Cambridge (Araneae: Antrodiaetidae). *A. riversi* has been recorded only in the coastal and Sierran mountain ranges of California (Coyle, 1971). After overwintering in the parental burrow, spiderlings emerge and establish their own permanent burrows. The burrow is enlarged as the spider grows (Vincent, 1980). Details of the natural history and population biology of *A. riversi* are found in Coyle (1971) and Vincent (1980). The spiders and the mites found in association with them were collected by the senior author at the University of California Blodgett Forest Research Station, which is located at an elevation of 1350 m. The forest is primarily composed of *Pinus ponderosa* Dougl. ex Loud. The description of the mite is to be attributed to the second author, Gisela Rack.

Although there are many reports of insect-mite associations (see MacNaulty, 1971), there are few reports of nonparasitic spider-mite associations. Mites parasitic on spiders have been recorded by Finnegan (1933), Lawrence (1940) and Shiba (1969) (cited in Krantz, 1978), Parker (1962, 1963, 1965), Parker and Roberts (1974), Domrow (1975), Cokendolpher et al. (1979), and Forster and Forster (1973); the latter authors displayed a photograph of a diplurid spider with parasitic mites on it. Some other brief associations mentioned in the literature are as follows: Michael (1894) observed mites (Bdellidae) on the web of the spider *Amaurobius ferox* (Walckenaer) under stones. These mites may have been eating insects too small for the spider to take. Vitzthum (1943) mentioned this observation as the only known case